

RESPONSE TO OFFICE ACTION

REMARKS

Applicant respectfully thanks the Examiner for his kindness and courtesy in conducting a telephonic interview with Applicant's undersigned representative in this case on May 1, 2008. Applicant's representative inquired about the Examiner's view of potentially allowable subject matter in the dependent claims and/or unclaimed matter in the specification. The Examiner suggested that Applicant focus on independent claim 18 and its dependent claims and associated embodiments in the specification.

The Present Invention

Since http is a connectionless protocol, one request from a particular client can be directed to one application server, while the next request from the same client machine might be directed to a different application server. Accordingly, server farms usually provide a means for the various servers to access the session data developed by another, redundant server so that a client can be served in a single session by any of a number of different servers in a server farm. A common way of enabling such sharing of http session data is by use of a database server that is accessible to the plurality of application servers for storing session data. Particularly, an application server will store session data in local memory, but will also write a copy of the session data to the common session database. If a different server services a request from a client, that different server can go to the database and read the session data for the corresponding session. In the prior art, the session data for a session is updated in both the local memory and the database each time a request causes a change in the data.

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In accordance with the invention, on the other hand, each server maintains http session data in a local memory, which will be updated every time there is a change in the session data, but the servers write a copy of the session data to the common database automatically only at designated times, rather than every time the session data is updated in the local memory. In one embodiment, the designated time is periodic. In another embodiment, the servers may write the session data to the database after a specified number of requests in that session has been serviced. In another embodiment, the servers may write the session data to the database after a specified number of times the session data has been updated in the local memory.

Discussion of the Claims

Claims 1-24 were pending in this application. Applicant has herein cancelled claims 1-17 and 19 in order to focus on claim 18, and particularly the embodiment in which the interval between updates to the database is a function of the number of times an http request in said http session is serviced. Accordingly, claims 18 and 20-24 are currently pending. Claim 18 has been amended. Applicant is not conceding in this application that the cancelled or original claims are not patentable over the cited art, as the present claims amendments and cancellations are only for facilitating expeditious prosecution of the presently pending claims. Applicant respectfully reserve the right to pursue these and other claims in one of more continuation and/or divisional applications.

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Claim 18 had previously recited that the update interval was a function of at least one of (a) the number of times the Http Session object data is updated in said local memory and (b) the number of times an http request in said http session is serviced.

The Office rejected claims 18-22 and 24 under 35 U.S.C. 103(a) as unpatentable over Courts in view of Prabandham and further in view of Yashiro. The Office rejected claim 23 as obvious over Courts, Prabandham, and Yashiro further in view of Ng.

Applicant respectfully traverses with respect to newly amended claim 18.

By way of background, the Office withdrew the present application from appeal and issued this latest Office Action specifically to address the shortcomings of the rejections of claim 18 and its dependent claims. Particularly, the Office essentially added the Yashiro reference to the rejection in order to overcome one of Applicant's previous arguments traversing the rejection of claim 18.

More particularly, the fundamental dispute between Applicant and the Office in this case was whether the prior art of record teaches the claimed intervals for updating the global database recited in the claims. With respect to the embodiment specifically claimed in former claims 1 and 11, the Examiner asserted that Dharmarajan teaches a method and apparatus for encoding session data utilized by a server computer and the use of a session timer based on the last transmission sent and that session timer being set to elapse after a predetermined amount of time, as claimed in independent claims 1 and 11. The Examiner also asserted that it would have been obvious to combine such teachings of Dharmarajan with Courts "because it allows for the data to be periodically written to the database".

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In previous Office Actions, the Examiner contended that Dharmarajan also taught the different intervals claimed in independent claim 18. However, in the latest Office Action, the Examiner, apparently realizing that Dharmarajan did not, in fact, teach the interval types claimed in claim 18, added Yashiro to the rejection of claim 18, asserting:

However, Yashiro teaches a disk array apparatus that only calculates new parity after a predetermined number of write requests (see abstract). Yashiro teaches the use of backing up data after it is updated a predetermined number of times (col. 6, lines 30-65).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Courts and Prabandham in view of Yashiro to use designated times determined as a function of at least one of (a) the number of times the Http Session object data is updated in said local memory and (b) the number of times an http request in said http session is serviced.

This rejection of claim 18 suffers from the exact same fundamental shortcoming as the previous rejections of independent claims 1 and 11 previously argued and still maintained by Applicant. Specifically, Yashiro does not teach that the designated times are "determined as a function of the number of times an http request in said http session is serviced". Rather, it teaches something quite different, namely, backing up parity data, (not http session data) after a predetermined number of write requests (not a predetermined number of times an http Session object is updated or the number of times an Http request is serviced).

While Yashiro generically teaches the use of a timer for timing the transmission of data over a network at fixed intervals, the data that is transmitted in Yashiro has absolutely nothing to do with session data for an http session, nor is it written to a shared database, nor is it transmitted responsive to the same events cited in Claim 18.

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A teaching of the use of a timer for a purpose that is entirely inapposite to the use of the timer in the present invention adds nothing relevant to the teachings of Courts and Prabandham and is irrelevant to the present invention.

The issue at hand is whether the references, in combination, suggest to the skilled artisan replacing the scheme of Courts and Dharmarajan (i.e., updating the global http session database every time the local http session database is updated) with a scheme in which the global http session database is updated after servicing a certain number of http requests since the last write to the shared database.

A reference, such as Yashiro, that concerns the sending of parity data, rather than http session data, not only does not provide such a teaching, but could not possibly lead one to the realization that one should update http session data in a database shared by a server family at intervals other than the conventional interval. The two subjects have nothing to do with each other.

Thus, as previously argued, there is no teaching, motivation, or suggestion in the prior art of record to make the proposed combination nor do the references collectively disclose all of the claim elements. Yashiro, like Dharmarajan, is simply inopposite.

Nevertheless, Applicant has amended claim 18 to even further distinguish over the propose combination. Particularly, claim 18 previously recited that the interval was a function of at least one of (a) the number of times the Http Session object data is updated in said local memory and (b) the number of times an http request in said http session is serviced.

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Applicant has amended claim 18 to eliminate the former of the two possible intervals, namely, the number of times the Http Session object data is updated in said local memory. Claim 18 now recites only the latter interval, namely, the number of times an http request in said http session is serviced. Thus, even accepting the Office's reasoning, Yashiro addresses only the former recited interval in original claim 18, not the latter one.

Yashiro's disclosure of updating the parity information "after it is updated a predetermined number of times" is, according to the Office's logic, analogous to updating http session data as a function of the number of times the Http Session object data is updated in said local memory. However, claim 18 now recites only that the update interval is a function of "the number of times an http request in said http session is serviced". Thus, even if one were to accept the Office's logic in rejecting original claim 18, newly amended claim 18 patentably distinguishes over the proposed combination since Yashiro teaching of setting the update interval as a function of the number of times the parity data is updated locally is completely different than setting it as a function of "the number of times an http request in said http session is serviced" as claimed in claim 18.

Conclusion

In view of the foregoing amendments and remarks, this application is now in condition for allowance. Applicant respectfully requests the Examiner to issue a Notice of Allowance at the earliest possible date. The Examiner is invited to contact

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Applicant's undersigned counsel by telephone call in order to further the prosecution of this case in any way.

Respectfully submitted,

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